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# SELF, OTHERS AND GROUP INTERACTION IN OUTDOOR EDUCATION

by

SHONA M. THOMPSON ©

A THESIS

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled "Self, Others and Group Interaction in Outdoor Education" submitted by Shona M. Thompson, in partial fulfilment of the requirements for the degree of Master of Arts.

# ABSTRACT

The purpose of the study was to investigate the influence of social and natural environment interaction on individuals participating in five outdoor education classes at the University of Alberta, Canada. By applying self interactionist theory to an outdoor education setting, it was intended that evaluation of outdoor education programs could be extended to include the social advantages for participants.

The individual's self concept was chosen as the basic unit of study. A self rating, self concept inventory was developed, modified from that used in a similar research by Sherwood (1962). This inventory was presented to the subjects before and after a three to four day camping experience. The data was analyzed using an S.P.S.S. computer package.

It was found that the self concepts of the subjects changed in a positive direction as a result of the outdoor education experience, (significant at the .001 level). Greatest changes were found to be in the skill area of the self concept which reflected the emphases of the outdoor education program. Changes were also found in socio-emotional and leadership areas. The influence of the other group members on the self was inconclusive, although a significant other in the group may have been effective.

It would appear that an outdoor education program of the type studied has the capacity to produce positive changes in the self concepts of those participating, but mainly in the areas emphasized by the program objectives.

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# CHAPTER I

## INTRODUCTION

Outdoor education is primarily concerned with the out of doors - the acquisition of knowledge by people in, for and about the out of doors (Donaldson and Donaldson, 1968:6). The background theory of outdoor education presents and reinforces a principle of interrelationships between the components of the total physical environment. Such a theory of interrelatedness has recently become an important consideration when viewing the situation of our natural physical environment in relation to our man-controlled physical environment. Regard for the natural environment is an extremely strong principle of outdoor education, with the emphasis placed upon knowledge, understanding and conservation.

In a predominantly urban society, an experience of living, playing and working in the out of doors for a period of time is often the only opportunity an individual has to 'feel' that he lives within a precious physical environment which need not always be like his urban environment - instant, manufactured or mass produced. Often it is forgotten that man is an integral part of the environment - the physical and the social elements tend to be viewed separately. Outdoor education can provide an opportunity for these two elements to be viewed as unified. The relationships between people hold as much importance for the future of mankind as man's relationships with the physical aspects of his environment. In an outdoor education experience, not only is man

interacting with the natural physical environment, but he may also be interacting with other people in this setting.

Social interaction involves two or more individuals, who bring to any given situation an already formulated concept of themselves which may or may not be altered to some degree through their interaction process. This self concept is a cognitive structure which is made up of a large number of concepts and attributes held by the person about himself (Gergen, 1971). Within this structure, his interaction with others is one frame of reference for perceiving and evaluating himself and others. This view of self is a product of the social and physical environment. It would appear, then, that an outdoor education experience of the type around which this study is based, would tend to intensify exposure to both the social and physical environments at the one time and should be an important experience for the continual formation and modification of one's self concept. However, the intensity could be such that the experience is just as likely to have a negative effect upon the self concept of an individual as it is to have a positive effect.

The outdoor education situation is an ideal place to gain some insight into the circular effect of interaction between the physical environment, self and others. While an individual is evaluating himself on physical criteria, testing his skills, knowledge and understanding of the physical environment around him, he is also comparing himself with others in the social group. He receives feedback from the group and the physical environment simultaneously, and further conceptualizes his view of self.

## Need for the Study

Outdoor education as a method for learning has recently gained greater acceptance and popularity in most educational institutions. Its valuable contribution to the relevance of many formal curriculum areas has been recognized. Pupils can, for example, study pond life by visiting a pond, or gain some understanding of history by visiting a graveyard. A further contribution made by outdoor education comes about when the definition encompasses recreational activities. These activities, which may include many pursuits such as canoeing, snow-shoeing, or bird-watching, can be introduced in an outdoor education program and lay the basis for recreational interests in later years. Such interests can be an alternative for the more competitive sporting activities which have comparatively short recreational value.

These contributions are great, but it does not seem adequate to say that academic and recreational activities are the only motivations for those people who become involved and see value in outdoor education. Those who are experienced in the field have witnessed time and time again the strong social aspect of outdoor education, especially during field trips. They have seen students opt for an outdoor education program to meet their social needs - to share an experience with and get to know others. They have seen the development of a strong bond within the groups, empathy, and often lasting friendships. On the other hand, they may have seen a field trip become a nightmare for some individuals simply because of a negative social experience. The delicate but undefined social process within a group can mean the difference between a positive

or a negative experience, which in turn can affect the whole outdoor education program.

There are many questions in this area which need to be answered. What is it about outdoor education and group activity that appeals to those people who choose to participate in it? What objectives for the individual does outdoor education meet? What is so important about the social aspect of a group in outdoor education? What responsibility do leaders of outdoor education groups have to individuals and the groups?

Outdoor education plays an increasingly important role in many schools, colleges, universities and communities. Programs are many and varied. The social aspects are a feature which all those in an administrative or leadership position in outdoor education should recognize. By gaining some insight into the effects that their programs could have on an individual participant, and insight into the nature of the groups they are working with, leaders and administrators can develop a greater understanding of the overall concept of outdoor education. Provisions for a more meaningful and successful program can also be made, which include experiences for gains in understanding and skill, as well as enjoyable social experiences. With an increased number of training courses in universities and colleges, more and more leaders and instructors are becoming qualified to conduct their own outdoor education programs. These leaders should be aware of all aspects relating to their subject, including the oft-neglected social aspects explored in this study.

## Purpose of the Study

The purpose of this study is threefold: Firstly, it is to apply aspects of self and group theory to outdoor education groups in a field setting and to develop a method and instrument for understanding and evaluating the group. Secondly, it is to determine the effects on an individual's self concept of an outdoor education field trip experience, considering this experience as an opportunity for the individual to evaluate himself in relation to both social criteria and the physical environment, using the perspective and the method evolved. It is an attempt to investigate the influence of group membership on an individual's experience in the outdoors, and the outcomes of such membership for the individual. Whether or not such an experience produces a greater coincidence between self concept and group perception of that individual as a process towards better adjustment, is also to be considered. Finally, using the method evolved, it is to assess the various aspects of outdoor group leadership in terms of its effectiveness for the groups and for the individuals within the groups.

## Problems Related to the Study

The following aspects of an outdoor education experience will be explored:

1. Does the nature of an outdoor education experience allow for a high degree of social and environmental interaction from which the individual can compare and evaluate himself, to the extent that it produces changes in his self concept?

2. If a change in self concept is produced in an outdoor education experience, in what way does this change come about? What specific dimensions of the self concept are changed?

3a. Is there evidence that group membership in an outdoor education experience facilitates changes in the self concept of an individual towards the perception of the rest of the group has of that individual?

3b. Is there evidence that some members of the primary group (P-group) are more influential in the process of self concept change for the individual than other members?

3c. Is the size of the group of any importance to the individual's evaluating process?

4. Are the individual's personal objectives for the outdoor education experience reflected in whom he chooses as a preferred other camper in relation to whom he sees as skill, task accomplishment and social leaders in his P-group?

# CHAPTER II

# REVIEW OF LITERATURE

It is necessary for this study to outline the self and group theory which is to be applied to the outdoor education situation. This eclectic discussion will include the following: Overview of Self; Self Concept and Social Comparison; Groups and Social Interaction. Related research specifically in the area of outdoor education will also be discussed in this chapter.

## I. OVERVIEW OF SELF

The 'self' is a much studied and documented concept. Although the definitions are many and often inconsistent, it appears to be generally agreed that one's view of self is a major consideration concerning individuals in a social and physical world. This view of self, or self concept, can affect how an individual behaves, feels, thinks and relates to people. "The way in which a man conceives of himself will influence both what he chooses to do and what he expects from life" (Gergen, 1971: 2). A self concept can be described as a cognitive structure which is made up of a large number of percepts, concepts and attributes which an individual feels about himself, or as Backman and Secord define it, "a set of cognitions or feelings towards oneself" (1964:579). Sherwood uses the term 'attribute' as his basic unit for analysis of self concept theory. "It may be considered to correspond to a percept, cognition or

cue by which the individual designates and discriminates objects and events in his experiential world" (1962;9).

Sherwood follows the theory put forward by Miller. He states:

> An identity consists of many dimensions, the meanings of which are derived from social experiences and are shared within different social groups. A man has a position on each of his dimensions. That position constitutes an attribute. Various segments of a dimension are considered unattractive, some tend to be neutral and some attractive or even ideal (Miller, 1959:2)

This position or attribute can be thought of in terms of a personality characteristic. An individual possesses a certain amount or degree of that characteristic, or maybe none at all, for example, he may see himself as being 'very' generous, 'quite' uninhibited, or 'not' humorous.

These attributes may change, in which case a self concept is dynamic. Sherwood's (1962) study showed that self identity changed in the direction of a public objective identity. Scott states "self is then not a fixed, clearly defined conformity of images of self, but rather a changeable, amorphous collection of self perceptions of which the person may be only partly aware" (1973:17). According to Mead (1934), self identity is a function of the position which a person occupies in groups and therefore changes as a result of changes in the social relations of the group. Gergen (1972) takes the theory of a changing self further. After many experiments concerning the self concept, he concluded that it was extremely flexible. He likened it to the wearing of many masks, but stressed that the wearing of a mask, or a change in self concept, need not be a false or insincere concept.

According to Gergen, "there are marked discrepancies between the way a person views himself from one situation to another" (1971:21), but all these views are as much a part of his self concept as any of the others. They are, of course, manifest in his different behaviours in different situations.

This follows the idea of "subselves" (Sherwood, 1962). It would seem then, that "self is a set of perceptions of oneself one learns from experience in numerous roles and situations experienced in social existence" (Scott, 1973:18). However, it is recognized that there exists a 'core' to an individual's many perceptions or concepts. Combs and Snygg suggest there is a fundamental aspect of self identity "...that seems to the individual to be 'he' in all times and at all places" (1959:127). This whole idea can best be summed up by stating that, although there may be a more highly valued core of self which accumulates over the years, self is flexible and able to present various selves in various roles" (Scott, 1973:18).

An outdoor education 'self' is just one of these selves. It is a view one has of himself in an outdoor education situation and is manifest in his behaviour in that role. It too is very flexible, subject to modification and change. However, this subself, or any other subself, can not be divorced from the recognized core of self which must develop from them. Combs and Snygg refer to this core when they state:

> The self is the most stable portion of the individual's phenomenal field and is the point of reference for everything he does. (It) is a basic variable affecting and controlling perception (1959:122).

## II. SELF CONCEPT AND SOCIAL COMPARISON

Cooley (1902) extended the social interactionist view with his theory of the "looking glass" self.

> For Cooley, the person's feelings about himself were seen largely as products of his relations with others, relations which affected him from the early years of life, on (Gergen, 1971:7).

This theory was later followed up by Mead:

> The self is something which has a development; it is not initially there, at birth, but arises in the process of social experience and activity, that is, develops in the given individual as a result of his relations to that process as a whole and to other individuals within that process (1934:135).

This development is also referred to by Allport, as a gradual acquisition of a "sense" of self, and "since the self is acquired, then the laws of learning must apply...conditioning, reinforcement, repetition are clearly necessary" (1937:138).

The work of Cooley and Mead has since been formalized in an operational form and tested by Backman and Secord (1963), Miller (1962), Sherwood (1962), and Scott (1973). Scott states:

> The teenager learns to identify himself and others from those people in his environment who he admires and respects. It is through significant others, such as his parents, teenage peers, occupational colleagues, teachers and coaches that he learns how to identify and act towards the social structure and himself (1973:25).

Such significant people have been termed "primary groups" (Cooley, 1902), "significant others" (Mead, 1934), "reference groups" (Hyman, 1959), "orientation others" (Kuhn, 1964), and "referent others" (Sherwood, 1962).

Two of these terms will be used in this study, "primary group" which refers to the membership group of the subjects, and "significant other" which refers to an individual within that group. In function:

> They serve as comparison points, they provide ideal images or models toward which the individual aspires, they implicitly or explicitly hold rewarding or reinforcing power, and they provide the perspective and vocabulary with which the individual defines self and others (Scott, 1973:26).

It is also recognized though, that each significant other does not necessarily serve all four functions. Videbeck (1960) suggests four factors which influence the effectiveness of one person influencing change or reinforcement of another's self concept. They are, the rate and frequency of approval or disapproval; how appropriate or qualified he is perceived to be to evaluate the person's characteristics or performance; how strongly motivated the individual is to achieve his aspired goal; and the confidence, conviction and strength of the other's assessment.

Festinger hypothesized that "there exists in the human organism, a drive to evaluate his opinions and his abilities" (1954:117). This is the basis of his theory of social comparison - in the absence of objective or physical evaluative criteria, opinions are evaluated by comparing them with those of others. The self concept is also evaluated in such a manner, but an outdoor education situation can offer both physical and social criteria. The theory of social comparison which has been adopted for this study, has implications for group formation and structure.

> The drive for self evaluation concerning one's opinions and abilities has implications not only

> for the behaviour of persons in groups but also for the processes of formation of groups and changing membership of groups. To the extent that self evaluation can only be accomplished by means of comparison with other persons, the drive for self evaluation is a force acting on persons to belong to groups, to associate with others (Festinger, 1954:135).

Wilson and Benner (1971) challenged some of Festinger's theories as being too simplistic, especially concerning the contention that similarity is necessary for adequate comparisons. Individual and situational factors were found by Wilson and Benner to be influential. According to Gerard (1961), there are two types of social comparisons that affect self evaluation. In one process a person directly compares his standing on a given attribute with that of others; in the other his self evaluation is influenced by his conception of how others regard him. Gerard (1961) also states that the greater the discrepancy between the individual's current estimate and the estimate derived from comparison, the greater his tendency to change his current estimate. This change is referred to by Calvin and Holtzman (1953) as a process of adjustment. They see discrepancy between the self concept and the self as viewed by others as a common feature of maladjustment to society. Similarly, Combs and Snygg (1959) feel that a person must maintain a concept of himself which coincides with that held by society.

In addition to Gerard's (1961) two types of social comparisons, a direct physical comparison can also affect self evaluation. This need not involve other people, but simply be a comparison of self with the physical environment. Such direct, objective physical comparison can have an influential effect on the make up of an individual's

self concept. However, Benjamin states:

> Among the many influences determining the nature of the picture an individual gains of himself, his perceptions of the reactions of others toward him are probably the most potent. Again, it is only through his perceptions that the actions of others affect him. This is important, as the principle of mental set operates here to keep a somewhat circular (or better, "snowballing") process in motion; the individual conceiving himself as a particular sort of person and conceiving the world as having certain characteristics, has a set which prejudices subsequent perceptions. One can not perceive in a manner which is completely incompatible with his whole conceptual system, in fact, one's conceptual system "gives" meaning to his experiences (1950:474).

## III. GROUPS AND SOCIAL INTERACTION

In order that social comparison can take place it is necessary for there to be some form of social interaction. The importance of social interaction to the self concept has previously been outlined. An individual can interact with one other person, as in a dyad, or with many others in a group. The term "primary group" (P-group) has been adopted for this study because of its appropriate definition:

> By primary groups I mean those characterized by intimate face-to-face association and cooperation. They are primary in several senses, but chiefly in that they are fundamental in forming the social nature and ideals of the individual. The results of intimate association...is a certain fusion of individualities in a common whole, so that one's very self, for many purposes at least, is the common life and purpose of the group. Perhaps the simplest way of describing this wholeness is by that it is a 'we', it involves the sort of sympathy and mutual identification for which 'we' is the natural expression (Cooley, 1902:23).

The feeling that members have towards their group and the other members, indicated by Cooley's use of the word 'we', would appear to hold importance to group process. Bales' (1968) Interaction Process Analysis described certain basic factors of social evaluation in social interaction. Many studies using this analysis consistently showed that the dimensions, affection and contribution to group tasks were such factors. This related back to Festinger's (1954) theory of "attraction" of a group.

Mehrabian and Ksionzky (1972), in their work with dyads viewed affiliation as an important factor determining the quality and quantity of interaction between the two people involved. Manis (1955) has previously compared the effects upon an individual's self concept of interaction with a friend and a non-friend. The findings showed that subjects were influenced significantly by their friend's perceptions of them, but only providing the friend perceived him in a more ideal light than he perceived himself.

Maehr, Mensing and Natzger found:

> Changes in self rating can be produced as the result of disapproval...similar changes can be produced by approval and, more significantly, there is a spread of effect to areas of self-regard not directly praised or criticized (1962:101).

Videbeck, who supported this finding, added that this effect was subject to dosage and durable over time. Further, "influence is exerted in one direction only; from the other to the self, not from the self to the other" (1960:368). However, it could also be argued that influence may be exerted in the other direction.

The structure of the group affects the quality of the inter-

action and the influence it may have. Zander, Stotland and Wolfe (1960) found that the greater the unity within a group, the more effect the group has on the self esteem of its members. The higher the unity, the greater the proportion of the self that becomes involved in the group and is affected by identification with the group. This follows Dittes, "the power of a group to exert influence over a member depends largely on the degree to which a person values his membership in the group" (1959:77). Attraction towards membership may be considered a function of two interacting determinants - the extent to which the individual's particular needs are satisfied by the group and the strength of his needs (Cartwright and Zander, 1953). In other words, why is he a member of the group, how important is this membership to him and is the group helping him to accomplish what he hopes to accomplish by being a member of it? Siegel and Siegel (1953) summarize that the influence of a group is dependent upon whether the membership group is also the referent group for the individual. This relates to the affiliative feeling within the group, and to whether or not the other members are significant others to the individual.

## The Size of Groups

Literature regarding the size of groups and their tasks appears to be very inconsistent. It is obvious that group size and task characteristics make some difference to the way people interact within the group, and kinds of reactions they have to the group experience (Hackman and Vidmar, 1970), but the nature of the difference is not clear. Thomas and Fink (1963), in reviewing thirty-one studies of

group size, concluded that the smaller the group the more a member will be satisfied with the group and his part in it. However, Slater (1958) showed that members may react negatively if the group is too small and that members find groups of five more satisfying. In the smaller groups the members appear to feel that the group is too 'intimate' and that they cannot express disagreements.

Of groups with two members, or dyads, Hackman and Vidmar found they were substantially different from other groups. "Dyads showed a higher level of intensity in performance, were especially well satisfied with the group experience, and reported a decided lack of coordination difficulties" (1970:47).

Slater (1958), like Hare (1952), found a general increase in dissatisfaction with group membership as group size increased, while Hackman and Vidmar (1970) propose that groups of four and five are "too comfortable" for effective task performance. Frank and Anderson (1971), whose tasks were of the 'production' type where images or ideas had to be created, tended to favour larger groups. Groups of five or eight members rated the task as easier, more beneficial and less effortful than did groups of two or three. However, Hare (1952) suggests that as size increases there is a tendency for groups to form subgroups or cliques and for more division of labour to occur. The cohesion of the total group can drop under such conditions. Frank and Anderson (1971) also concluded that even sized groups have higher rates of disagreement on decision making than odd sized groups. However, Mills (1953) found that a threesome tends to break up into a pair and a third party. All these studies favoured tasks of intellective activities rather than motor activities.

## Groups in Outdoor Education

"It is hard to find a situation that allows as many natural kinds of interaction as camping" (Harmon, 1972:13). Harmon is referring to a three day camping trip for student teachers, during which he recognized its contribution to a greater understanding of self and others. "It involved the development of underlying attitudes towards one's self, society and some of the tasks that are essential to human existence" (1972:14).

Rabban (1973) sees camping groups as possessing therapeutic capacities.

> Individuals can benefit from dealing with group members with problems even when they can make life together difficult and trying..."Working through" those problems enhances the quality of human-empathy potential in children and also enriches the quality of group life (1973:8).

Rabban cites cases of groups containing problem children and concludes that, within groups, these children benefit measurably and elicit an interaction which contributes to the development of others in the group and to the quality of the group life. However this does not mean that all interpersonal problems within groups can be beneficial, or that problems are prerequisites to good group life. Krieger says of resident camps "few other situations provide the variety and intensity of group interaction over such an extended period of time" (1973:17). A parallel can be drawn for outdoor education where similar groups and activities are involved.

## IV. THE OUTDOOR EDUCATION SETTING

The definition and objectives of outdoor education have been written numerous times by different people working in the field. While all agree on the importance of the outdoor setting for the learning of facts and concepts concerning the environment, not all recognize the importance of the social aspects involved. There is a tendency, for example, to encourage the learning of patterns of interrelations between and amongst bird and animal species while disregarding that such patterns may require opportunities for learning amongst the human species.

Donaldson and Donaldson state "Outdoor education is education in, about and for the outdoors" (1968:6). They view the word "for" as being the key word because it implies the kind of approach necessary in outdoor education. The emphasis is on the environment - knowledge, understanding, appreciation and a positive sense of responsibility, "for" its preservation. Very few people can doubt the importance of this today, but such objectives tend to be restricted to the physical environment.

Hammerman and Hammerman (1964) outline the basic needs served by outdoor education as: the need for effective learning; the need for realism in education; the need for recreative experiences; the need for basic concepts; and the need for awareness -- all pertaining to nature. School camping, which in many cases is the outdoor education program, has been said to offer "opportunities for youth to widen his experiences, to motivate classroom procedure, to build vigorous body health, to experience the thrill of accomplishment and to lay down the basis for many recreational habits" (Nash, 1968:39). Mand (1968) views the objectives

of outdoor education as;

> 1. An appreciation of natural resources.
> 2. Improved instruction in science, language, arts, social studies.
> 3. Development of recreational skills in the outdoors.
> 4. Social experience.
> 5. Community service.
> 6. Aesthetic awareness. (1968:29).

The social experience objective here refers mainly to a pupil/teacher relationship, but Mand does state: "The typical response to a school camping venture almost always includes mention of the social-emotional opportunities attendant upon the experience" (1968:30).

Smith et al say of outdoor education:

> It is not a separate discipline with prescribed objectives like science and mathematics; it is simply a learning climate offering opportunities for direct laboratory experiences in identifying and resolving real-life problems, for acquiring skills with which to enjoy a lifetime of creative living, for building concepts and developing concern about man and his natural environment and for getting us back in touch with those aspects of living where our roots were once firm and deep (1972:20).

Smith et al recognize fully the social objectives in outdoor education and define them in detail:

> The preservation and development of both the individual and society demand that every normal individual develop the abilities and characteristics essential to effective social living in a democracy (1972:28).

The objectives as laid down by Smith et al are later elaborated upon with statements like: a variety of social settings are provided where people can be themselves and where the group relations and individual feelings are in proper balance; camp can be a miniature community where

most community problems have their counterparts; many outdoor activities are possible only through teamwork and group action; living in the outdoors is informal and simple; there is little adherence to social or economic status or other barriers to real understanding (Smith et al, 1972). However, these statements are oversimplified and in some cases contradictory. Strong arguments could be made against them.

One of the reasons for outdoor education as set out by Kelly, is "children then will have an opportunity to live together twenty-four hours a day. They can learn, sone for the first time, what cooperative living can mean" (1972:4). A study done by Fitzpatrick (1968) showed there was close agreement amongst a panel of thirty selected outdoor educators in regard to outdoor education goals. This panel, all persons closely associated with many aspects of outdoor education, agreed by majority on eight goals. The first of these was "To help realize, through outdoor education, the full potential of the individual toward optimum development of mind, body and spirit" (Fitzpatrick, 1968).

## Related Research in Outdoor Education

Much research has been done in the area of outdoor education generally and some has concerned the social outcomes. The specific concerns of these studies tended to differ to the extent that educational effectiveness, leadership, sociometric patterns and changes in personality, attitudes and self concepts of individuals have been investigated. Cole (1957), Johnson (1957), Kleindiest (1957), Rupff (1957), Berger (1958), Kranzer (1958), Becker (1960), Stack (1960), Davidson (1965), Gibson (1966), Steel (1969), Coren (1970), Coolbaugh (1972), and Krieger

(1973) all sought to measure the effectiveness of outdoor education and school camping programs. Although different aspects were measured, all tended to show that the program and the environment could positively influence social and personal development.

Of these studies, five were concerned more specifically with self concepts. Davidson (1965) investigated changes in the social relationships and self concepts of fifth and sixth grade children in relation to two opposing school camp curricula based on differing philosophies. One camp was child-centred, where the children had input into the program and the administration of the camp, while the other was adult centred and more authoritarian. Self concept check lists and classroom social distance scales were used. He found that both encampments produced positive change on the self concept scale and in social relationships, with no significant difference between the camps.

Steel (1969) dealt with the effects on the self concept of educable mentally retarded adolescents. Although measuring physical skills and academic achievement, he found a gain in their general self concept. The subjects for Becker's (1960) study were, again, sixth grade students. Becker found there were significant positive shifts in the self concept of pupils of both sexes who had been camping, moreso than of non-campers. He concluded, "Thus it seemed apparent that, as a group the children who had gone to camp experienced increased feeling of confidence as people to an extent that was not matched by children who had not gone" (1960:354). He attributed this to the social climate provided by the camping situation.

Coolbaugh's (1972) subjects were underprivileged children

who were sponsored for their camping experience. The instrument used for evaluation contained four sub-categories of the self concept, namely trustworthiness, self control, unselfishness and independence.

> Results consistently demonstrated marked positive effects on the campers and how they felt about themselves. Those campers with the lowest scores at the first test were those who demonstrated the most gain in score at the second testing (Coolbaugh, 1972:12).

Krieger states:

> A review of the research literature indicates a definite positive effect on the self concept of children as a result of an organized camping experience; however, little effort has been made to specify the social milieu giving rise to this change (1973:16).

Krieger proceeded to investigate the effects on self concept of younger as compared to older campers and male as compared to female campers. Although he found an increase in the self concepts, there was no significant difference between the groups. "The potency of the camping experience carries across age and sex groups in terms of promoting positive feelings about the self" (Krieger, 1973:16).

Kranzer (1957), Davidson (1965), and Gibson (1966) all utilized sociometry in their research. Davidson's results were positive, but Kranzer found that during a five day camping program for grade six pupils, the number of isolates tended to increase beyond that normally found in a classroom. Gibson's study (1966) was partly concerned with the placing of grade six students in cabins according to high and low social rank. He found that such a placement system improves group cohesion and, contrary to Kranzer (1957), reduces the number of isolates. Gibson also stated that placing students in this way "provides for a greater oppor-

tunity for students of low rank to win self esteem" (1966;v).

Johnson (1957) also made reference to group unity during an outdoor experience, finding that group cohesion increased significantly during the camp period studied.

It is very noticeable how many of the studies in this area have concerned grade six students. This age group is apparently the most desirable for school camping programs and therefore tend to be more accessible for research purposes. There is definitely a great lack of research and literature pertaining directly to the young adult group, which is the age category of this study.

## Definition of Terms

1. Outdoor education experience: The field trip for the outdoor education program, which entailed three to four days of camping in an isolated, wooded area, living in lean-to shelters or tents, and participating in the many activities required to develop skills for outdoor survival.
2. Single outdoor education experience: The three to four day field trip experience during which a subject undertook to camp on his own rather than as a member of a group.
3. Dimension: A personality trait or characteristic, described in terms of a continuum, which is one aspect of an individual's total self identity.
4. Attribute: The position along the dimension continuum which describes a personality characteristic by the degree of that particular dimension that an individual possesses. Such positions are dynamic rather

than static.

5. Social dimension: A characteristic which refers solely to one's ability to socially interact with others, for example, sensitivity to others, friendliness and tolerance.
6. Task accomplishment dimension: A characteristic which relates to one's ability to perform and accomplish a particular task, for example, cooperation.
7. Leadership dimension: A characteristic which refers to one's capabilities as a group leader, to influence the activities of the group, for example, showing good judgment, preferring to direct.
8. Skill dimension: A characteristic pertaining directly to one's skills in the outdoors, for example, manual dexterity.
9. Aesthetic dimension: A characteristic referring to the degree of appreciation an individual has for the physical environment.
10. P-group: The primary group, or subgroup to which the individual is most closely associated throughout the outdoor education experience.
11. Self concept: For the purpose of this study, self concept refers to an individual's view of his attributes on specific dimensions; his conception of personality characteristics.
12. Other's perception of self: The attributes or personality characteristics of an individual as seen by the other members of his P-group, these members hereafter being referred to as significant others.
13. Coincidence: The degree to which the individual's concept of himself concurs with the conception of him held by his significant others.

14. Social leader: A member of the P-group who has been selected by the other members, either collectively or individually, as the member who contributed most to the social aspects of the outdoor education experience.

15. Task accomplishment leader: A member of the P-group who has been selected by the other members, either collectively or individually, as the member who contributed most to the task accomplishment aspects of the outdoor education experience.

16. Skill leader: A member of the P-group who has been selected by the other members, either collectively or individually, as the member who contributed most to the skill aspects of the outdoor education experience.

17. Preferred other: (PO) A subject who has been selected by another as the person most preferred with which to share a similar outdoor education experience.

18. Less preferred other: (LO) A subject who has not been selected by another as either a preferred other, or a social, task or skill leader.

19. Outdoor living-specific dimension areas: Those dimension areas which appear to be most relevant to living in the outdoors as shown by this outdoor education experience.

20. Non outdoor living-specific dimension areas: Those dimension areas which appear to be least relevant to living in the outdoors as shown by this outdoor education experience.

# CHAPTER III

# METHODS AND PROCEDURES

## Research Hypotheses and Question

The following hypotheses and question were tested in this study:

1. The social and/or environmental interaction which occurs during an outdoor education experience produces changes in an individual's self concept corresponding to the direction and quality of that interaction - in this case a positive direction.
2. As a result of an outdoor education experience, greater changes in an individual's self concept occur in outdoor living-specific dimension areas than in non outdoor living-specific dimension areas.

3a. The self concept of an individual after the outdoor education experience coincides greater with the perception of him held by the others in his P-group than does his self concept before the outdoor education experience.

3b. Coincidence between an individual's self concept after the outdoor education experience and the perception of that individual held by a highly significant other person is greater than the coincidence between the individual and a less significant other person.

3c. Coincidence between an individual's self concept after the outdoor education experience and the perception of that individual held by the others in his P-group is greater when the P-group is small.

4. The following research question was explored;

   What are the individual's personal objectives for the outdoor education experience as reflected in whom he chooses as a preferred other camper in relation to whom he sees as skill, task accomplishment and social leaders in his P-group?

## Research Setting and Sample

The field research reported took place during January, February, March and April of 1975 in the Edmonton, Alberta area. It utilized the 126 students enrolled in five different outdoor education classes during the winter term at the University of Alberta. Although these classes were offered in the Faculty of Physical Education, the students were from four different programs: Bachelor of Physical Education; Bachelor of Arts in Recreation Administration; Bachelor of Education; and Master of Science in Physical Education. The students were in their first to fifth year of enrollment at the University, with the majority being in the second to fourth years.

Three instructors were responsible for the classes, two of the instructors taking two classes each. In spite of this, the format of the classes was very similar. All classes combined theory, in the form of lectures and discussion, with practical laboratories and field trips.

The field trips around which this research was based took place at different times throughout January, February and March. However, all trips were winter camp-outs with the same goals and objectives. They all required the students to camp in lean-to shelters or tents in an

isolated, wooded area, practicing and developing their camping, survival and manual skills, and developing their appreciation of the outdoors. The duration of the field trip was three days for four of the classes, and four days for the fifth class.

Before the trip, each class subdivided into smaller groups which were to become the camping units, or P-groups. The size of these groups depended entirely upon the decision of the instructor involved. For example, one class consisted of pairs and single campers only, while another class had groups of up to eight subjects. This provided a natural range in the size of the groups without interfering with the plans of the instructor. The actual membership of each was in most cases decided by the subjects, each subject being relatively free to choose which group he belonged to and with whom he camped. However, this was not so for one of the studied classes. Here, the instructor selected the group membership for his class, which may have differed the experience for these subjects. Gibson comments on a specific effect of different group selection, stating:

> When students are placed together by random selection, isolates and neglectees increase, but when students are placed according to social rank into homogeneous groups, the isolates and neglectees are reduced (1966:217).

For this study, whether the group selection had differing effects upon self concept change is not established.

With the method of this study being that of repeated observations of subjects in field research, attrition problems tend to be magnified. Consequently, when subjects did not appear for class for the administration of the second questionnaire, three other class meet-

ings were attended by the investigator. If, after this period, the subject still had not appeared, he was then dropped from the study. For this reason, the data for some of the P-groups was incomplete.

Questionnaires one and three were administered and returned complete within a matter of minutes. Unfortunately, in some classes, with questionnaire two taking longer to complete, it was not practical to administer and collect the questionnaire in the same session. When this occurred, the percentage of questionnaires returned was somewhat lower. In total, seventy-one per cent of the initial sample completed all three questionnaires.

## Instrumentation and Development

The same questionnaire was used throughout the study, with differing instructions for each time it was presented. The basic format was a modified version of Sherwood's Inventory of Self Concept (Sherwood, 1962:171), which consisted of twenty-six dimensions, all bi-polar adjective rating scales. Ten of these dimensions were utilized in the pilot study for this research. The ten point rating system was retained and a further five dimensions which were felt to be more suited to the specific outdoor education experience were added. This type of scale has been shown to have test retest reliability of .85 (Sherwood, 1962), (Scott, 1973).

This inventory of fifteen dimensions was piloted on a group of twenty outdoor education students in relation to a field trip they undertook during September, 1974. From this data, and discussion with the subjects afterwards it was determined which of these dimensions

appeared to be most relevant to the outdoor situation. Of those taken from Sherwood, three were retained in their original form and two were slightly modified. Two other dimensions used in the pilot study were retained and two were modified. A further seven were then added.

In order to ensure reasonable construct validity of the instrument, eight outdoor education instructors, all of whom had been responsible for outdoor education classes and field trips at the University of Alberta were consulted regarding the dimensions.[1] They were questioned on the qualities that they felt were important for a successful group and individual outdoor education experience, and asked to rate the fifteen dimensions of the pilot study. After analysis of all the above factors sixteen dimensions were selected for this research.

These dimensions were differentiated arbitrarily, on the basis of experience, into five self identity areas: leadership; task accomplishment; skills; socio-emotional; and aesthetics. In the leadership category the dimensions were: Need to be directed-Prefer to direct; Show judgement-Lack judgement; Show initiative-Need to be guided; Knowledgeable of the outdoors-Lack knowledge of the outdoors. Those dimensions relating to task accomplishment were: Helpful-Hindering; Disinterested-Enthusiastic; Uncooperative-Cooperative; Dislike abnormal situations-Adaptable to abnormal situations. Skill dimensions included: Skilful with an axe-Not skilful with an axe; Not manually dexterous-Manually dexterous; Competent in outdoor skills-Not competent in outdoor skills. Socio-emotional dimensions were: Sensitive to others-Insensitive

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[1] Those consulted were: R. Clements; R. Glade; Dr. L.L. Lanier; R. Long; B.G. Meropoulis; Dr. H.A. Scott; Dr. W.D. Smith; D.B. Stuart.

to others; Unfriendly-Friendly; Lack self confidence-Self confident; Tolerant-Intolerant. The one dimension relating to aesthetics was: Appreciate nature-Take nature for granted. Although there was no formalized order to these dimensions, they were arranged on the inventory in such a way that they were not grouped together in these areas. This was to avoid patterned responses as much as possible.

An extra task required of the subjects in the pilot study was to indicate, on the inventory, the attributes they considered 'ideal' for an outdoors person. For the fifteen dimensions used in the pilot study, this information served to determine the positive end of the dimension pole. As only some of these dimensions were retained for the final inventory, the positive/negative value for those dimensions which were added was determined by the general consensus of opinion of the outdoor education experts.

With the positive/negative orientation of the poles established, the dimensions were then arranged, placing some positive poles on the left hand side of the inventory and some on the right hand side. There was no set pattern for this arrangement. However, the proportion of dimensions with positive orientation on the left hand side is approximately equal in both the inventory for this study and that developed by Sherwood. It was intended that by changing these orientations from left to right in an irregular manner, patterned responses might again be avoided and the concept of a continuum would be continually reinforced.

Another consideration taken from Sherwood was the category labelled 'Not a part of my picture'. This area, placed below and separate from each dimension, could be checked if the subject felt that this par-

ticular dimension was not a part of his concept of himself, or of his perception of any one other subject. This category was included to avoid imparting attributes to subjects by the structure of the questionnaire. Because the subjects had this means to "opt out" of a dimension, the scale for this research was a ten point rating type, rather than the eleven point scale used by Sherwood. This was to eliminate the neutral position which no longer seemed necessary.

Another feature added to the second questionnaire was four sociometric questions to gain insight into the functioning of the P-group, the patterns of interactions between the members, and the leadership patterns. "Sociometric technique is the use of appropriate sociometric tests to reveal group structure and to identify subdivisions of the group and various types of group positions" (Jennings, 1973:11). Three questions required each subject to indicate which members of their P-group they felt served leadership functions in skill, task accomplishment and socio-emotional areas. The response to a further question gave the subjects choice of their preferred other camper. This was used as an indication of their preferred other (PO) who was a significant influence in the group.

## Procedure

Questionnaire one, the self rating, self concept inventory was administered to all subjects prior to their departure for their particular outdoor education experience. In most cases this was done the day before the departure, at which time the subjects had already formed their P-groups and begun the necessary planning and preparation within

that P-group unit. At this stage the subjects were introduced to the study and their full cooperation was requested. Before each was asked to rate himself on the questionnaire, the dimensions were clarified and questions were answered. In particular, the dimensions: Appreciate nature-Take nature for granted; Not manually dexterous-Manually dexterous; Knowledgeable of the outdoors-Lack knowledge of the outdoors; and Dislike abnormal situations-Adaptable to abnormal situations were further defined to help ensure all subjects had similar frames of reference. It was stressed that all attributes were to be viewed specifically in relation to an outdoor education situation.

Also at this time, each subject submitted a code number, the last four digits of their telephone number, which was to be used as an identity reference. A prefix number was later added to this which indicated their group membership with all members of the same P-group having the same prefix number. A further prefix number was attached which indicated the class membership of the subject. All those in the same class would then have the same first digit to their code number which would indicate the same outdoor education experience.

Two to three days after the field trip ( the time being determined by the availability of the subjects), the second questionnaire was administered. This required all students to rate each member of his P-group in the same way and on the same dimensions as he had previously rated himself. For this reason the second questionnaire contained the same inventory as the self concept questionnaire. For each subject, the number of inventories equaled the number of other members of the subject's P-group. In addition, each subject was required to answer the sociometric

questions. Those subjects who had undertaken single experiences were not required to respond to this questionnaire.

The post outdoor education experience, self rating self concept questionnaire was the last to be administered. This was a repetition of the first self concept inventory and was, in most cases, administered at the same time as the second questionnaire.

## Analysis of Data

### Rationale for Parametric Data Analysis

It was decided that for the purpose of this study, parametric statistics, using means and standard deviation from original scores, rather than non-parametric statistics would be utilized.

All analyzed data was derived from the ten point bi-polar scales which could be assumed to be at least of ordinal quality (Scott, 1973). Seigel (1956) states that parametric statistics should not be used for ordinal scaled data but this position has been more recently refuted by several authors. Anderson (1970) stated that the type of measuring scale had little relevance to the decision to use parametric or non-parametric tests. Further:

> ...the F-(or t) test may be applied without qualm... It will then answer the question it was designed to ask: can we reasonably conclude that the difference between the means of the two groups is real rather than due to chance (Anderson, 1970:54).

Although much has been written on the advantages of non-parametrics when the assumptions of parametric methods are not satisfied (Orlick, 1972).

> a review of the studies concerned with investigating the effects on tests of significance of failure to satisfy the assumptions of analysis of variance and the two-tailed test, indicates little distortion even when marked deviations from assumptions occur (Gaito, 1970:47).

Many studies have been done since Seigel's (1956) work which have brought forward strong arguments for the use of parametric tests. These are explored in detail in Orlick's (1972) study.

## Analysis of Variance

Analysis of variance has been selected as the general mode of statistical analysis for this study, to test the significance of the difference between three or more means. The rationale put forward by Edwards (1972:112) was utilized. The means of the self concept (Time 1 and 2) and the perceptions of other members of the P-group are analyzed to test hypotheses 3a, 3b and 3c. However, in testing hypotheses 1 and 2, the difference between only two means is analyzed. In these cases the test is repeated. "When a test is given and then repeated, an analysis of variance may be used to determine whether the mean change is significant" (Garrett, 1958:291).

## Analysis of Data by Hypotheses

The nature of the data for this research was such that the failure of one subject to return a questionnaire meant incomplete data for the rest of the subjects in his P-group. Because of this, there is a variation in the number of subjects used for each hypothesis.

Analysis of data by each hypothesis is thus:

Hypothesis 1:

The data for all subjects who completed both self concept inventories was computed, (N=104). A one way analysis of variance with repeated measures was done using the University of Alberta's Statistical Package for the Social Sciences (SPSS) to determine whether there was a significant change between Time 1 and Time 2 of the self concepts. Analysis was done of the total self concept as well as for each of the sixteen dimensions.

A two way analysis of variance with repeated measures was likewise done to determine whether there was a significant difference in the self concept change between single and group campers. The unweighted means approach was used for unequal cell members (Winer, 1962: 302).

Hypothesis 2:

The data was used for all subjects who completed both self concept inventories, (N=104). A one way analysis of variance with repeated measures was done using the University of Alberta's SPSS computer program to determine whether there was a significant change between Time 1 and Time 2 of the self concept in the dimension areas.

Hypothesis 3a:

Data was used for all subjects who had been rated by one or more other members of their P-group, (N=92). A two way analysis of variance using absolute differences was computed using the University of Alberta's SPSS program to determine whether there was a significant difference between Self (Time 1), Self (Time 2) and group perception of

the individual.

Hypothesis 3b:

Data was used for all subjects who had selected a preferred other from their P-group, (N=46). A two way analysis of variance was computed using the University of Alberta's SPSS program to determine whether there was a significant coincidence between self concept, (Time 1 and 2), and the perception held by a preferred other as opposed to a less preferred other.

Hypothesis 3c:

Data was used for all those subjects with one or more others' perception ratings, (N=92). It was arranged into three categories depending upon the size of the group each subject belonged to: Small (Group size being two and three members, N=18); Medium (Group size being four and five members, N=47); and Large (Group size being six and seven members, N=27). A two way analysis of variance with a Duncan's multiple range test (Steel and Torrie, 1960:107) was computed to determine whether there was a significantly greater degree of coincidence between self and other perception in any of the group size categories. Again, the University of Alberta's SPSS computing program was utilized.

Research Question 4:

Data was used for all subjects who had selected social, task accomplishment and skill leaders, as well as preferred others in the sociometric question, (N=62). Analysis was done by tabulating the number of

matches of preferred other with leadership choices. First and second choices for preferred other were considered, as were the preferred other choices which did not match with members in the subject's P-group. Results are presented in a descriptive form.

## Delimitations

1. The study and findings reported are delimited to male and female students at the University of Alberta in their first to fifth year of enrollment in the Physical Education and Education Faculties and the Department of Recreation Administration.
2. The study and findings are delimited to a three to four day winter camping experience in an isolated, wooded area.
3. The study and findings are delimited to a cold weather, group camping experience for which the objectives are skill orientated.

## Limitations

1. In field research such as this, while there are great benefits to be derived from a natural, more realistic situation as opposed to one which is controlled and manipulated, there are limitations on the ability to control many variables. These factors, which could not be held constant for all groups and may have had differing effects upon the outdoor education experience are: the campout location, the temperature, the depth of snow cover, the diet of the campers during the field trip and the previous experience in winter camping of the campers.
2. The length of time of the outdoor education experience can be viewed

as a limitation. Ideally, a longer period than the three to four days of the field trips would have allowed for more social and environmental interaction.

3. Due to the differing degree of access the researcher had to the subjects of the study, the time span between the return of the questionnaires and the field trip experience was not entirely consistent. An attempt to control this was made by establishing a cutoff date after the field trip. Any questionnaires returned after this date were not included for analysis. This presented another problem with respect to drop-out rates and incomplete group units.
4. The subjects being derived from three different classes is a limitation of this study. This is because the field trip studied was not always the initial field trip for that particular class. Four of the classes had had at least one trip before the one studied. This meant they interacted with other members of their class in an outdoor setting previously and would know each other better than the subjects in classes which had not been on as many trips together.
5. Three different instructors being responsible for the outdoor education program and experience may be viewed as a limitation. However, it can also be seen as a strength of the study. Any effects of the outdoor education experience upon the subjects would be regardless of the instructor involved or his program bias.

# CHAPTER IV

# RESULTS AND DISCUSSION

The purpose of this study was to examine the effects of an outdoor education experience, particularly a group experience, upon the self concept of the participants on sixteen selected dimensions. Five hypotheses were formulated and the statistical findings of the data collected in the "natural" experiment are presented below by hypotheses. Discussion of the results follows each data presentation. In addition, descriptive data also collected is included in this chapter. The significance of each finding is indicated when one of the four levels are met, rather than state an arbitrary level. This method of allowing the reader to set their own level of significance is in accordance with current literature.

## Presentation of Data by Hypotheses

### Hypothesis 1:

Social and/or environmental interaction which occurs during an outdoor education experience produces changes in an individual's self concept.

### Results:

This hypothesis was strongly supported. Analysis of variance computed to determine the significance of the mean change in self concept from Time 1 to Time 2, established an F-value of 17.456 which was found to be significant at the .0001 level of confidence (TABLE 1). The means

of T, Time 1=3.376, Time 2=3.088 indicates the direction of the change in self concept. By being a lesser value, the mean for Time 2 shows significantly more positive orientation of the self concept.

TABLE 1

CHANGE IN TOTAL OUTDOOR EDUCATION SELF CONCEPT
FROM TIME 1 TO TIME 2 ON MEAN OF ALL DIMENSIONS:
ANALYSIS OF VARIANCE

| Source | D.F. | S.S. | M.S. | F-value | Sign. |
|---|---|---|---|---|---|
| Between Groups | 1 | 4.309 | 4.309 | 17.456 | **** |
| Within Groups | 103 | 25.425 | .246 | | |
| Means of T | 3.376 | 3.088 | | | |
| Mean difference | 3.232 | | | | |

****$p \leq .0001$ (one-tailed test, N=104)

Discussion:

It seems obvious, therefore, that in spite of the differences in the outdoor education experience for the subjects - the instructors, the location, the number of previous experiences, the weather and the program, the experience itself produced a highly significant positive change in the general outdoor education self concept of the individuals involved. The social and/or environmental interaction which occurred during the outdoor education experience seems to have provided the positive feedback necessary to instigate a positive modification of the self concept on the dimensions investigated. The position on each of these dimensions, or attribute (Miller, 1959) has moved to the more positive end.

This finding supports the theory that the self concept is dynamic and subject to change. How permanent this self concept change is is still somewhat open to question in the literature. The outdoor education self has been evaluated on the physical criteria of the environment and the social criteria of the group interaction process. It would appear that such evaluation proved favourable. Although the outdoor education self is but one of the many subselves an individual may have which contribute to his total self (Sherwood, 1962), a change in this subself can effect changes to the total self. The core to an individual's perceptions or concepts may become more positive as a result of a more positive subself, through the spreading effect to other areas of the self (Maehr et al, 1962).

In this respect, the outdoor education experience may hold importance to the total or core perception an individual has of himself. The results of this study show, as did the work of Becker (1960), Davidson (1965), Steel (1969), Coolbaugh (1972) and Kreiger (1973), that an outdoor education camping experience can modify a self concept to the point where an individual perceives himself more positively after the experience than before the experience. As this can relate to his overall view of himself, it may also influence his expectations from life, as suggested by Gergen (1971).

The subjects of this study were young adults. It appears that such self concept changes can occur in this age group as well as in the younger ages mentioned in the studies cited above. As shown by Steel (1969) changes can occur in mentally retarded adolescents, and by Coolbaugh (1972), in underprivileged children. It would be an obvious

implication that such outdoor education experiences can greatly benefit groups of emotionally disturbed or socially retarded children, or any group in which a boost to their self concepts could have therapeutic importance. However, opportunities for this kind of benefit should be open to all.

Hypothesis 2:

As a result of an outdoor education experience, greater changes in an individual's self concept occur in outdoor living-specific dimension areas rather than in non outdoor living-specific dimension areas.

Results:

This hypothesis was supported. The analysis of variance computed for each of the dimension areas to determine the significance of the self concept change from Time 1 to Time 2 established that the change was not significant in two of the five dimension areas. Those dimension areas were task accomplishment and aesthetics (TABLE 2). However, the dimension areas of leadership, socio-emotional and skill were found to be highly significant.

A further breakdown of self concept changes was computed for each of the sixteen dimensions individually. The analysis of variance was to determine the significance of change in self concept on each separate dimension from Time 1 to Time 2. It was found that nine of the dimensions were not significant at the .05 level while seven were found to be significant at differing levels (TABLE 3).

## TABLE 2

## CHANGE IN SELF CONCEPT FROM TIME 1 TO TIME 2 ON MEANS FOR DIMENSION AREAS

| Dimension area | Direction | Mean Diff. | F-value | Sign. |
|---|---|---|---|---|
| Socio-emotional | + | 2.994 | 11.981 | *** |
| Leadership | + | 2.585 | 16.895 | *** |
| Skill | + | 3.682 | 21.809 | **** |
| Task accomplishment | + | 2.954 | .554 | |
| Aesthetic | - | 2.533 | .140 | |

***$p \leq .001$ ****$p \leq .0001$ (one-tailed test, N=104)

### Discussion:

It would appear that the greater changes in the self concept of these subjects took place on dimensions which were more specific to the outdoor education experience, for example, competence in outdoor skills and knowledge of the outdoors. It can be said that the experience required the majority of, if not all of the participants to practice and possibly develop their individual skill level of tying knots, carving, trying a handicraft (all of which come under the definition of manual dexterity), using an axe or other such outdoor skills as fire building or building a shelter. While it is possible that some individuals had negative experiences in this area which is unlikely to have produced a positive change in their self concept, it appears such cases would have been in the minority. Significant positive changes were found on all skill dimensions which supports the very highly significant change in

### TABLE 3

### CHANGE IN SELF CONCEPT FROM TIME 1 TO TIME 2 ON MEANS FOR INDIVIDUAL DIMENSIONS

| Dimension | Direction | Mean Diff. | F-value | Sign. |
|---|---|---|---|---|
| 1 Helpfulness | + | 2.923 | 3.546 | |
| 2 Sensitivity to others | + | 3.024 | 2.701 | |
| 3 Directing | + | 4.269 | 5.859 | * |
| 4 Skilled with axe | + | 3.875 | 12.259 | *** |
| 5 Friendliness | + | 2.548 | .045 | |
| 6 Appreciative of nature | - | 2.533 | .140 | |
| 7 Showing judgement | + | 3.105 | 2.199 | |
| 8 Enthusiasm | - | 2.697 | 2.594 | |
| 9 Manual dexterity | + | 3.663 | 4.332 | * |
| 10 Self confidence | + | 3.408 | 23.714 | **** |
| 11 Initiative | + | 3.375 | 8.145 | ** |
| 12 Competence in skills | + | 3.509 | 23.179 | **** |
| 13 Knowledgeable | + | 3.591 | 16.108 | **** |
| 14 Cooperation | + | 2.620 | .008 | |
| 15 Adaptability | + | 3.576 | 1.754 | |
| 16 Tolerance | + | 3.009 | 2.454 | |

*$p \leq .05$ **$p \leq .01$ ***$p \leq .001$ ****$p \leq .0001$ (one-tailed test, N=104)

the skill dimension area (TABLE 2). This is understandable as the objectives for the programs in which these subjects were participating tended to emphasize the area of skills.

The significance level of the socio-emotional and leadership dimension areas, which show great positive change could also indicate their importance to an outdoor education experience. However, the specific dimensions which showed significant positive change in these areas are few (TABLE 3). In the leadership area, the dimensions of directing and initiative are qualities which obviously were practiced in the experience and the subjects gained positive feedback of some form which produced the positive change. Judgement, however, was a dimension which did not change significantly. In speculation, had a state of emergency developed during the outdoor education experience which required quick and important decisions to be made, it is possible that a significant change either positively or negatively would have resulted. In other words, a quality or dimension which an individual does not put into practice may be less likely to change in his self concept simply because he does not receive feedback on that dimension.

The one significant socio-emotional dimension, self confidence, deserves some discussion. It was found to be very highly significant and could be explained by the significant change in the total outdoor education self. A positive change in self confidence may have come about through positive changes in, for example, skill dimensions. The practice of, and gains in skill ability would add to the self confidence in that skill area. This could contribute to the self confidence of the overall outdoor education subself which may, in turn con-

tribute to the total self confidence. However, gains in self confidence may not have been restricted to skill areas as indicated by the following passage written by one of the subjects after the outdoor education experience:

> I know a year ago I would have shied away from this situation (performing in a campfire program). I feel much more confident now in front of people. Outdoor education has been a base and lead to the formation of this confidence.

It appears that outdoor education could make a large contribution to the total self confidence of an individual.

Following the argument that practice of a dimension may create an opportunity for changes in the self concept, some dimensions are conspicuous by the fact that they did not show a significant change when it was expected that the outdoor education experience would require these dimensions to be practiced. Such characteristics as cooperation, friendliness, helpfulness and sensitivity to others should have been important during the outdoor education experience. Group functioning in this situation can be very relevant to task accomplishment, as recognized by some of the subjects in their log books:

> We were also very fortunate in having a group who equally shared responsibility and provided help to each other wherever possible.
>
> Relying on other people was a big part of the trip. If things were to run smoothly, everyone must do their share of the work.
>
> I think that everyone was trying to make our group work together.

It is possible that the subjects of this study were already aware of the need for cooperative qualities and the individual contributions they would be required to make, previous to the outdoor educa-

cation experience. Therefore they would enter the situation with an idea of how they would need to, and intend to, behave in task accomplishment situations. If this was the case, a positive experience would merely support this conception of how they were capable of behaving, rather than instigate significant change. On the other hand, a group which does not function well may not have the social environment to give positive feedback to an individual on a task accomplishment dimension. In this situation, changes in the individual's self concept in the area is less likely to occur and there could even be a negative change.

Two of the dimensions, although not significant, showed a change in the negative direction (TABLE 3). These were enthusiasm and appreciating nature. In both of these it is quite possible that the experience may have been a 'revelation' to these individuals who started out with an unnecessarily high and unrealistic view of themselves on these dimensions. Their initial enthusiasm for winter camping may well have been dampened by the experience. Three of the field trips took place during very cold, below $0^{o}$F temperatures. A log book after such an experience stated "I am never going winter camping again!".

Similarly, their self ratings on appreciation of nature may have been unrealistically high before the experience. They may have based their ratings on a highly romantic view of nature. Camping in the outdoors in such harsh conditions as the temperatures experienced by the subjects may well be a strong antidote to this romantic view.

Nevertheless, the reliability of the appreciation of nature dimension is questionable. It was intended that the added definition and example given when administering the inventory would ensure that all

subjects had a similar frame of reference. This did not appear to have happened and the dimension may have been subject to many value interpretations.

Further analysis was completed on this data to determine whether there was any significant difference between those individuals who were group members and those who were single campers. It was established that there was no significant difference in the change of self concept between these two subject groupings (TABLE 4).

The result would appear to indicate that social interaction did not contribute as strongly as expected to the self concept change, and that the change must have been more as a result of interaction with the physical environment and in the improvement of self confidence and physical skills. It is an understandable result, nevertheless, after reviewing the types of dimensions which showed the significant changes (TABLES 2 and 3). These skill dimensions were not exclusive to a group experience and were the qualities which would have been practiced by groups and solo campers equally. However, a single experience, simply being alone can be in a reverse manner, a social experience. Even without the direct social interaction and comparison, one's social qualities may be re-evaluated while alone for any length of time.

It should be noted though that the experimental setting contained a flaw in this respect. A large majority of the single subjects joined the rest of the class group for the day's program, hence it was not a truly isolated situation for them and some social interaction was still experienced.

The findings related to hypotheses 1 and 2 seem to indicate

## TABLE 4

## DIFFERENCE BETWEEN THE SELF CONCEPT CHANGE OF SINGLE CAMPERS AND P-GROUP MEMBERS ON MEANS FOR INDIVIDUAL DIMENSION AND DIMENSION MEAN: ANALYSIS OF VARIANCE

| Dimension | Single Mean | Group Mean | Difference | F-value | Sign. |
|---|---|---|---|---|---|
| 1 Helpfulness | 1.400 | 1.409 | .009 | .007 | |
| 2 Sensitivity to others | 1.350 | 1.468 | .118 | .114 | |
| 3 Directing | 2.150 | 2.010 | .140 | .196 | |
| 4 Skilled with axe | 1.350 | 1.819 | .469 | 3.199 | |
| 5 Friendliness | 1.300 | 1.250 | .050 | .003 | |
| 6 Appreciative of nature | 1.250 | 1.287 | .037 | .001 | |
| 7 Show judgement | 1.450 | 1.510 | .060 | .031 | |
| 8 Enthusiasm | 1.450 | 1.390 | .060 | .092 | |
| 9 Manual dexterity | 1.850 | 1.728 | .120 | .054 | |
| 10 Self confidence | 1.300 | 1.550 | .250 | .912 | |
| 11 Initiative | 1.550 | 1.580 | .030 | .106 | |
| 12 Competence in skills | 1.600 | 1.590 | .010 | .458 | |
| 13 Knowledgeable | 1.700 | 1.650 | .050 | .436 | |
| 14 Cooperation | 1.250 | 1.314 | .064 | .005 | |
| 15 Adaptability | 1.600 | 1.730 | .130 | .500 | |
| 16 Tolerance | 1.500 | 1.440 | .060 | .271 | |
| Dimension Mean | 1.503 | 1.548 | .045 | .357 | |

(one-tailed test, N=104)

clearly the curriculum areas stressed in the outdoor education program. The emphasis upon skills is reflected in the significance of these dimensions in the study. It would appear that the study has tapped information showing the outdoor education program is producing what it aims to produce - skilled individuals. If any other benefits for the individual are to be derived from the program, they too may need to be emphasized to a greater degree. Group cooperation was an intended objective of the programs studied but it seems apparent that this was not adequately catered for before or during the outdoor education experience. Likewise, environmental appreciation is referred to in terms of program objectives. The failure of such dimensions to greatly change may be partly explained by the romanticism theory outlined previously, but it may also reflect critically the program and its structure. These findings in themselves have value in the study.

### Hypothesis 3a:

The self concept of an individual after an outdoor education experience coincides greater with the perception of that individual held by the others in his P-group than does his self concept before an outdoor education experience.

### Results:

This hypothesis was not supported. The analysis of variance computed to determine the significance of the difference between the self concept (Time 1) and the P-group perception compared with the difference between the self concept (Time 2) and the P-group perception did not establish a significance at the .05 level (TABLE 5).

TABLE 5

COINCIDENCE BETWEEN SELF CONCEPT TIME 1 AND THE P-GROUP PERCEPTION COMPARED WITH SELF CONCEPT TIME 2 AND P-GROUP PERCEPTION: ANALYSIS OF VARIANCE

| Source | D.F. | S.S. | M.S. | F-value | Sign. |
|---|---|---|---|---|---|
| Between Groups | 1 | .122 | .122 | .5744 | |
| Within Groups | 91 | 19.344 | .212 | | |

(one-tailed test, N=92)

Discussion:

It seems apparent therefore that the subjects of the study did not change their self concepts to significantly coincide with the perception of them held by the other members of their P-group. It could then be inferred that the P-groups were not the significant influence which caused the change or modification of the individual's self concept. However, these findings require considerable interpretation. No group perception of the individual was taken before the experience as the majority of the subjects would not have known each other well enough to be able to give a reliable rating. Therefore, there was no P-group perception (Time 1). Because of this an assumption has to be made concerning the difference P-group perception, Time 1 would have been from P-group perception, Time 2. Sherwood (1962:113) assumed that group perception did in fact change during the experimental period and that assumption was also adopted for this study.

According to Dittes (1959) the influence of a group on an individual member is dependent upon the degree to which that individual values his membership in the group. In this outdoor education situation,

where group membership was intense for three to four days but dissolved immediately thereafter, membership may not have been highly valued. However, given that the concept and perceptions were specific to the outdoor education experience, an outdoor education P-group would very likely be the only referent group for the individuals (Siegel and Siegel, 1953) and would tend to be influential.

Other members of the P-group were, for some dimensions, the only comparison points for the individual. As the self concept change was found to be significant for the total mean for all dimensions (TABLE 1), the P-group must have influenced change of these specifically social dimensions. The socio-emotional dimension area also showed significant change (TABLE 2), but in viewing the particular dimensions in all dimension areas which showed change (TABLE 3), it can be seen that many of them were not entirely dependent upon social comparison and feedback.

Social interaction of some form was necessary within the P-group during the experience. However, it would appear that the interaction did not automatically ensure that an individual's self concept would modify to coincide with that held by the P-group, even when the concept was specific to their common reference point, outdoor education. Theorists have indicated that other factors as well as interaction are required before a group has an influential effect upon the members. Attraction to the group (Festinger, 1954), affiliation (Mehrabian and Ksionzky, 1972), and group unity (Stotland and Wolfe, 1960) are such factors.

Although not necessarily, these factors of attraction, affili-

ation and unity are very often present within outdoor education field trip groups. The sharing of common interests and goals and the type of setting can often contribute to these factors. However, another important consideration for these factors is the length of time a P-group exists together for interaction. The time factor is a limitation of this study. In view of the existing literature, it is believed that had the outdoor education experience been of a longer duration, and therefore social interaction been more prolonged, the P-group influence upon the individuals would have been more potent.

Coincidence between self and others perception could come about in two ways; either the self concept is modified to how the P-group transmits its perception of the individual, or the group perception is modified to how the individual transmits himself. Although it is believed that the influence is greater from the group to the self (Videbeck, 1960), it is quite possible that both processes could occur simultaneously. Either way, this process, leading to coincidence, is dependent upon the interaction between the group and the self. The direct feedback of the individual's success in the interacting process with the environment will also contribute to substantiate the views of self and/or P-group. Again, these processes are dependent upon the factors discussed above, relating to the quality and quantity of the interaction which will be further discussed in relation to hypothesis 3c.

Hypothesis 3b:

Coincidence between an individual's self concept after the outdoor education experience and the perception of that individual held by a significant other person is greater than the coincidence between

the individual and a less significant other person.

Results:

This hypothesis was not statistically supported. The analysis of variance computed to determine the significance of this coincidence did not establish a significant difference between self (Time 2) and the perception held by a preferred other (PO) as opposed to a least preferred other (LO) (TABLE 6).

TABLE 6

DIFFERENCE BETWEEN SELF CONCEPT (TIME 2),
PREFERRED OTHER RATING AND LEAST PREFERRED
OTHER RATING: ANALYSIS OF VARIANCE

| Source | D.F. | S.S. | M.S. | F-value | Sign. |
|---|---|---|---|---|---|
| Between Groups | 2 | .781 | .390 | .436 | |
| Within Groups | 90 | 80.538 | .894 | | |

(one-tailed test, N=92)

However, a comparison of mean scores does show a trend (TABLE 7).

TABLE 7

DIFFERENCE BETWEEN SELF CONCEPT (TIME 2),
PREFERRED OTHER RATING AND LEAST PREFERRED
OTHER RATING: COMPARISON OF MEANS

| | Means | P.O. | Diff. | L.O. | Diff. |
|---|---|---|---|---|---|
| Self Time 1 | 3.409 | 3.061 | .34 | 3.228 | .18 |
| Self Time 2 | 3.077 | 3.061 | .01 | 3.228 | .15 |

P.O. - Rating of preferred other; L.O. - Rating of least preferred other;
Diff. - Difference from self rating. (N=92)

The preferred other (PO) and least preferred other (LO) only rated the individual after the outdoor education experience. The difference between these ratings and the two self ratings (Time 1 and Time 2), do show an interesting trend. As can be seen on TABLE 7, the difference between the ratings of self, Time 1 and LO is less than the difference between the rating of self, Time 1 and PO. After the outdoor education experience the self rating had changed. While the difference now between self and LO has changed only slightly from that previous, the difference between self and PO has changed considerably so that only a rating of .01 separates them.

Discussion:

It would appear that although this hypothesis was not supported statistically, a trend is emerging whereby an individual's self concept changes toward the perception of him held by a significant other, at least more so than it changes towards the perception of him held by someone who is not significant. This tends to mildly support the theory concerning the influence of significant others relating to self concept of such theorists as Mead (1934), Sherwood (1962) and Scott (1973).

These significant others serve as the comparison points for the individual, and provide for him a perspective for defining himself and others (Scott, 1973). The feedback from significant others is more relevant to the individual than that from a non significant other. If an individual's conception of himself on a particular dimension does not coincide with that held of him by another, he would be more likely to modify his conception if that other's opinion is viewed as relevant to him. If that other is not significant he is less likely to modify his

conception.

It would seem, therefore, that positive changes in the self concept during outdoor education experiences could be best brought about by assigning participants to groups with others they hold as significant. However, in this study the significant or preferred other was selected after the field trip and it is possible that subjects chose as preferred those others whose perception of them coincided with their own. According to Manis (1955), the perception of a friend which is very likely to be significant, only influences change if it is a more positive perception than the individual's own.

Hypothesis 3c:

Coincidence between an individual's self concept after the outdoor education experience and the perception of that individual held by the others in his P-group is greater when the P-group is small.

Results:

This hypothesis was not statistically supported. The analysis of variance computed to determine whether there was a significant difference between the group sizes with regard to the coincidence between self and group perception, established that the difference was not significant at the .05 level. This was established both for analysis in the three group size areas - small, medium, amd large (TABLE 8), and for analysis in the six group sizes - groups of two (dyads), three, four, five, six and seven (TABLE 9).

## TABLE 8

### COINCIDENCE BETWEEN SELF CONCEPT (TIME 2) AND MEAN RATING OF OTHERS IN P-GROUP IN RELATION TO P-GROUP SIZE AREA: ANALYSIS OF VARIANCE

| Source | D.F. | S.S. | M.S. | F-value | Sign. |
|---|---|---|---|---|---|
| Between Groups | 2 | .445 | .227 | .203 | |
| Within Groups | 89 | 97.735 | 1.098 | | |

(one-tailed test, N=92)

## TABLE 9

### COINCIDENCE BETWEEN SELF CONCEPT (TIME 2) AND MEAN RATING OF OTHERS IN P-GROUP IN RELATION TO P-GROUP SIZE: ANALYSIS OF VARIANCE

| Source | D.F. | S.S. | M.S. | F-value | Sign. |
|---|---|---|---|---|---|
| Between Groups | 5 | 4.6384 | 0.9277 | 0.853 | |
| Within Groups | 86 | 93.5425 | 1.0877 | | |

(one-tailed test, N=92)

Discussion:

These results would seem to indicate that the size of the P-group has no effect upon the degree of coincidence between self and group perception. As discussed previously in relation to hypothesis 3a, this coincidence is dependent upon the interaction between the self and the group, more specifically the quality and quantity of interaction. It would appear then, that the size of the P-group during an outdoor education experience does not necessarily account for the quality and quantity of interaction which is required to produce the desired coinci-

dence. There seem to be many specific outdoor education factors other than the size of the P-group which influence the type of interaction.

These factors could include the harmony of the group, the pre-trip planning, the weather and the type of tasks involved. Comments from the log books indicate these factors:

> When we first started out on the trip none of us expected to get along because we had six leaders and no followers. But our group just got along fantastically...Another consideration is that the weather wasn't very bad so it made group functioning easier.
>
> The lack of planning called for greater cooperation on the spot.
>
> During the time we were setting up the sauna there was excellent group cooperation.
>
> We had initially started out with a group of 5 people. Suddenly someone's wife was coming along, another "outsider" threw themselves on the group and a latecomer joined in to make the group total 8. To my way of thinking a group as large as that can not function efficiently.

It can not be concluded that interaction is synonymous with cooperation, only that cooperation requires interaction. However, these types of comments suggest that quality and quantity of interaction during an outdoor education experience is not necessarily related to the size of the P-group. This tends to imply that, for an outdoor education experience which is emphasizing social interaction, or more specifically a program to allow for social adjustment of the individual's self perception, there is no optimum group size. Optimum size will also be influenced by such factors as length of group life, severity of the environmental or task demands on the group and hence for cooperation and division of labour.

Research Question 4:

This data was analyzed manually to establish an indication as to the extent the preferred other was also selected by the subject as a leader in the three leadership categories (TABLE 10). It was assumed that if a subject selected as his preferred other a member of his P-group whom he also viewed as the social leader, for example, then his personal objectives for that experience would lie in the social sphere. In the same manner, if his preferred other was also his selection for skill or task accomplishment leadership, then his personal objectives would tend toward those spheres. In some instances the preferred other may not have coincided with any leadership selections, or may have been chosen outside the P-group (TABLE 11).

TABLE 10

TOTAL NUMBER OF PREFERRED OTHER CHOICES WHICH
COINCIDE WITH LEADERSHIP SELECTIONS

| | Skill | Task | Social |
|---|---|---|---|
| 1st PO | 21 | 19 | 20 |
| 2nd PO | 10 | 6 | 12 |

Skill - Skill leader
Task - Task accomplishment leader
Social - Social leader
N=68; Group N=16

### TABLE 11

### TOTAL NUMBER OF PREFERRED OTHER CHOICES WHICH DO NOT COINCIDE WITH LEADERSHIP SELECTIONS

| | Within P-group | Outside P-group |
|---|---|---|
| 1st PO | 4 | 20 |
| 2nd PO | 10 | 26 |
| Both PO | | 13 |

N=68; Group N=16

Duplications were found in this analysis, where a subject chose as his preferred other a member of his P-group whom he also selected for two or all the leadership categories (TABLE 12).

### TABLE 12

### TOTAL DUPLICATIONS OF PREFERRED OTHER CHOICES WHICH COINCIDE WITH LEADERSHIP SELECTIONS

| | Task/Skill | Skill/Soc | Task/Soc | Task/Skill/Soc |
|---|---|---|---|---|
| 1st PO | 11 | 2 | 6 | 1 |
| 2nd PO | 1 | 2 | 1 | 1 |

Task/Skill - Duplications on Task and Skill leaderships
Skill/Soc - Duplications on Skill and Social leaderships
Task/Soc - Duplications on Task and Social leaderships
Task/Skill/Soc - Duplications on all three leaderships
N=68; Group N=16

Discussion:

If it can be assumed that personal objectives are indicated by the coincidence between preferred other and leadership selections, then these results showed that the subjects of this study supported all three spheres of objectives. Their first choices for preferred other are almost equally spread between skill, task accomplishment and social leaders, as well as outside the P-group. This would indicate that even in a group which is relatively homogeneous in age and educational aspirations such as this sample of university students, participating in programs with the same emphasis, a wide variety of personal objectives can be expected.

This data would tend to indicate also that some of these objectives may not have been met, or that some individuals still had other types of objectives for the experience. The number of choices made outside the P-group could be a parameter of dissatisfaction felt by those individuals toward the other members of their P-group and someone from another P-group would better meet their objectives.

From the duplications (TABLE 12) it appears that one individual may serve the function of two or more objectives. The duplications of preferred other coinciding with two leadership types tend to be in task accomplishment and skill leaders moreso than the other two combinations. This is understandable considering that in many instances in outdoor education, skill is required to be able to accomplish the task. However, task accomplishment as defined by the dimensions of this study tended to have social orientations which may account for the duplications between social and task accomplishment.

To summarize therefore, not only do participants in an out-

door education experience vary in their personal objectives, but these objectives can be multiple and overlapping.

# CHAPTER V

# SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

## Summary

The purpose of this study was to apply some aspects of self interactionist theory to young adults in an outdoor education setting. It was assumed that an outdoor education situation provided a setting where interaction with the physical environment and in the social environment occurred simultaneously. It was also assumed that this interaction was, by the nature of the outdoor education experience, heightened to a degree that made the self concept and group interaction very important issues in an outdoor education program.

The "natural" or field experiment utilized five outdoor education classes at the University of Alberta, involving 104 subjects. It was based around a three to four day field trip in a semi-wilderness area, where the emphasis was placed upon the gaining of knowledge and skills. For the purpose of the experience the classes had been divided into camping units or P-groups. These ranged in size from two to eight members. However, ten of the subjects had chosen to camp alone.

The perception inventory for the study was developed using the Self Perception Inventory of Sherwood (1962) as a guide. Many of Sherwood's dimensions were replaced by those more specific to an outdoor education situation. The procedure required subjects to rate themselves on the inventory before and after the outdoor education experience. Also, after the experience they rated all other members of their P-group on

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

the same inventory. Four sociometric questions sought to determine subject camp partner preference in terms of their characteristics.

This data was analyzed to test the following hypotheses and research question:

1. Social and/or environmental interaction which occurs during an outdoor education experience produces positive changes in an individual's self concept.
2. As a result of an outdoor education experience, greater changes in an individual's self concept occur in outdoor living-specific dimension areas than in non outdoor living-specific dimension areas.

3a. The self concept of an individual after an outdoor education experience coincides greater with the perception of that individual held by the others in his P-group than does his self concept before an outdoor education experience.

3b. Coincidence between an individual's self concept after an outdoor education experience and the perception of that individual held by a highly significant other person is greater than the coincidence between the individual and a less significant other person.

3c. Coincidence between an individual's self concept after an outdoor education experience and the perception of that individual held by the others in his P-group is greater when the P-group is small.

Research Question 4. The individual's personal objectives are reflected in whom he chooses as a preferred other camper in relation to whom he sees as skill, task accomplishment and social leaders in his P-group.

## Conclusions

1. A highly significant positive change in the self concept of the participants of the outdoor education experience was established.
2. Significant self concept changes were found in the skill, socio-emotional and leadership dimension areas. The aesthetic and task accomplishment dimension areas were not found to have changed significantly.
3. The specific dimensions which showed significant positive change in the self concepts were: preferring to direct; skilful with an axe; manual dexterity; self confidence; initiative; competence in outdoor skills; and being knowledgeable of the outdoors. The dimensions of appreciating nature and enthusiasm showed negative changes, although not significantly.
4. No significant difference in self concept change was found between those who were members of a P-group and those who camped singly during the outdoor education experience.
5. The coincidence between the individual's self concept and the perception of him held by his P-group was not found to be significantly greater after the outdoor education experience.
6. The coincidence between the individual's self concept and the perception of him held by a preferred other was not found to be significantly greater than between himself and a least preferred other. However, there did appear to be a trend whereby the individual's self concept had moved toward the perception of him held by a preferred other.
7. No significant difference was found between any sized group in the

coincidence between the self concept and the perception held by others within the three to four day experience of this study.

8. It can be expected that the personal objectives of the individuals who chose to participate in an outdoor education experience might be many and varied.

## Implications

Based upon the results of this study, the following implications may be drawn:

1. An outdoor education environment such as that experienced by the subjects of the study, provides opportunities for interaction with the physical and social environments simultaneously and therefore has the capacity to produce positive changes in the self concepts of the individuals.
2. An outdoor education experience of the type studied can contribute greatly to the self confidence of an individual participating in it.
3. An outdoor education program creates an environment which allows for the practice of the objectives emphasized. This can produce in those emphasized areas a more positive self concept in the participants, which in turn can add to their general self concept.
4. Those aspects of self which are more specific to the type of outdoor education program will tend to show the greatest positive changes in the self concepts of the participants after the field trip experience.
5. The relative emphasis placed on physical skills, social interaction and environmental appreciation in the course objectives of the curriculum will be reflected in corresponding changes in the physical and

socio-emotional skills and environmental appreciation aspects of the participants' self.

6. An outdoor education experience such as the one studied does not necessarily, through group membership and social interaction, allow opportunity for an individual to develop a self concept which coincides with society's perception of him. However, it is speculated that a longer outdoor education experience than the ones studied here may show different results.
7. There are many factors which influence the interaction of members within a group in an outdoor education experience. Of these, group size is not necessarily the only important factor.
8. Single and group experiences in an outdoor education field trip for young adults have equal capacity to develop changes in an individual's self concept, if the emphases of the experiences are common to both single and group campers.
9. An outdoor education experience such as the one studied has the capacity to produce negative changes in the self concept.

## Recommendations

Further research in this area of outdoor education should concentrate more on the internal structure of field trip groups and the effects upon the individual members. As yet, the interaction process within groups in an outdoor setting, which can be very potent, is very much undefined. It is conclusive that an outdoor education experience has a strong capacity to influence the individual's self concept, but the social influence in this respect is still unclear. To determine

these social influences more accurately it would be necessary to separate the social interaction from the environmental interaction in the analysis. For the purpose of this study they were viewed as simultaneous processes and analyzed as such, but individually the influences are not conclusively determined.

Whether changes in self concept have lasting effects can be explored, particularly in relation to groups which remain as a group unit after the experience. Self and group theory could be applied to school classes for example, and the long term effects upon the relationships in the classroom and the individual selves could be assessed. This is important if it is to be recognized in the educational system that outdoor education experiences have benefits beyond those that are strictly academic.

Further study should be undertaken using a case study approach, taking a few outdoor education groups and studying them in depth. In this way many of the difficulties encountered in this study could be avoided. An outdoor education group with four or five P-groups on an extended field trip would be an ideal setting. This would ensure consistency of the program, of the availability of subjects and the experience, as well as allowing more time for group patterns to be established. The research should be of an ongoing nature rather than the before and after design, with the researcher continually present to develop a deeper understanding of the experience and the events which could contribute to the social processes. Data could be compiled from the personal observations of the researcher as well as the inventory and sociometric techniques. A greater use of sociometry throughout the field trip would help to show changing

relationship patterns in the P-groups during the experience, changes or consistencies in significant others and indicate interaction processes outside the P-group. A case study approach would eliminate many of the problems encountered in the present study and would provide much information of the interaction and its influences actually during the outdoor experience.

Comparative studies are a further possibility. Group and self theory could be applied to programs with different orientations and objectives to provide valuable comparative data on group structure, functioning and the effects upon the individuals of the different programs.

This study has been an attempt to discover what it is about an outdoor education experience that can influence both groups and individuals participating. However, much research is still required to develop a comprehensive understanding of such influences and their outcomes.

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# APPENDIX A

# SELF RATING SELF CONCEPT INVENTORY

# QUESTIONNAIRE 1

NAME ______________________________

## AN INVENTORY OF SELF CONCEPT

This questionnaire is an attempt to find out how people in this group picture themselves. Only you can tell us how you really see yourself. This can be a very rewarding experience for you in the development of self insight. The final value of the information which you give will depend upon your honesty and the care with which you answer the questions.

Your responses will be completely confidential and for further use you will be given a code number. Please put the last four digits of your telephone number in the space provided on the next page for this purpose.

Please answer as you see yourself. We are not interested in how you think others see you or how you represent yourself to others. Do not be concerned if you see yourself as being different in different situations, (e.g. Enthusiastic). You are to indicate how you picture yourself generally or most usually in the outdoors. All responses are to be made specifically in relation to a group outdoor situation, similar to that of an outdoor education field trip.

Each characteristic is represented graphically by a scale. Please indicate the location on the scale where you presently picture yourself with an X. Place your marks in the middle of the space, (—+—X—+—), not on the boundaries.

If you honestly feel that any of these characteristics are not a part of your picture of yourself, please indicate by checking the appropriate place.

CODE NUMBER ____________

| | | | |
|---|---|---|---|
| 1. | Helpful | | Hindering |
| | | not a part of my picture____ | |
| 2. | Sensitive to others | | Insensitive to others |
| | | not a part of my picture____ | |
| 3. | Need to be directed | | Prefer to direct |
| | | not a part of my picture____ | |
| 4. | Skilful with an axe | | Not skilful with an axe |
| | | not a part of my picture____ | |
| 5. | Unfriendly | | Friendly |
| | | not a part of my picture____ | |
| 6. | Appreciate nature | | Take nature for granted |
| | | not a part of my picture____ | |
| 7. | Show judgement | | Lack judgement |
| | | not a part of my picture____ | |
| 8. | Disinterested | | Enthusiastic |
| | | not a part of my picture____ | |
| 9. | Not manually dexterous | | Manually dexterous |
| | | not a part of my picture____ | |
| 10. | Lack self-confidence | | Self-confident |
| | | not a part of my picture____ | |
| 11. | Show initiative | | Need to be guided |
| | | not a part of my picture____ | |
| 12. | Competent in outdoor skills | | Weak in outdoor skills |
| | | not a part of my picture____ | |
| 13. | Knowledgeable of the outdoors | | Lack knowledge of the outdoors |
| | | not a part of my picture____ | |
| 14. | Uncooperative | | Cooperative |
| | | not a part of my picture____ | |
| 15. | Dislike abnormal situations | | Adaptable to abnormal situations |
| | | not a part of my picture____ | |
| 16. | Tolerant | | Intolerant |
| | | not a part of my picture____ | |

# APPENDIX B

# GROUP PERCEPTION INVENTORY

# QUESTIONNAIRE 2

CODE NUMBER ________________

This questionnaire is an attempt to find out how you perceive the other members of your field trip group, on the same characteristics as you were asked to picture yourself. It is a very important part of this total study.

Please use one page for each member of your group and put his/her name at the top. This will help you to identify with that person and their code number will be substituted later. All responses are to be made specifically in relation to how you saw that person during the past field trip. Indicate where you perceive him/her to be on each scale with an X.

Once again we are relying on your honesty and your ability to think carefully throughout.

Finally, please reply to the questions on the last page.

Thank you.

CODE NUMBER ____________

1. Helpful |—|—|—|—|—|—|—|—|—|—| Hindering
not a part of my picture____

2. Sensitive to others |—|—|—|—|—|—|—|—|—|—| Insensitive to others
not a part of my picture____

3. Need to be directed |—|—|—|—|—|—|—|—|—|—| Prefer to direct
not a part of my picture____

4. Skilful with an axe |—|—|—|—|—|—|—|—|—|—| Not skilful with an axe
not a part of my picture____

5. Unfriendly |—|—|—|—|—|—|—|—|—|—| Friendly
not a part of my picture____

6. Appreciate nature |—|—|—|—|—|—|—|—|—|—| Take nature for granted
not a part of my picture____

7. Show judgement |—|—|—|—|—|—|—|—|—|—| Lack judgement
not a part of my picture____

8. Disinterested |—|—|—|—|—|—|—|—|—|—| Enthusiastic
not a part of my picture____

9. Not manually dexterous |—|—|—|—|—|—|—|—|—|—| Manually dexterous
not a part of my picture____

10. Lack self-confidence |—|—|—|—|—|—|—|—|—|—| Self-confident
not a part of my picture____

11. Show initiative |—|—|—|—|—|—|—|—|—|—| Need to be guided
not a part of my picture____

12. Competent in outdoor skills |—|—|—|—|—|—|—|—|—|—| Weak in outdoor skills
not a part of my picture____

13. Knowledgeable of the outdoors |—|—|—|—|—|—|—|—|—|—| Lack knowledge of the outdoors
not a part of my picture____

14. Uncooperative |—|—|—|—|—|—|—|—|—|—| Cooperative
not a part of my picture____

15. Dislike abnormal situations |—|—|—|—|—|—|—|—|—|—| Adaptable to abnormal situations
not a part of my picture____

16. Tolerant |—|—|—|—|—|—|—|—|—|—| Intolerant
not a part of my picture____

1. In your opinion, who contributed the greatest amount of skill to the efforts of your group?

   1st Choice ______________________________

   2nd Choice ______________________________

2. Who in your group contributed most in tasks which helped the group function successfully?

   1st Choice ______________________________

   2nd Choice ______________________________

3. Who contributed most to the easing of tension or conflict which may have developed within your group?

   1st Choice ______________________________

   2nd Choice ______________________________

4. If you were to go on a very similar field trip this weekend, who would you prefer to accompany you?

   (Your choice may be made from the entire class)

   Please briefly indicate why you chose that person.

   1st Choice ______________________________

   Because ______________________________

   2nd Choice ______________________________

   Because ______________________________

# APPENDIX C

## SELF RATING SELF CONCEPT INVENTORY

## QUESTIONNAIRE 3

# QUESTIONNAIRE #3.

This is the final questionnaire you will be requested to complete. Nevertheless it would be appreciated if you gave it the same careful consideration shown in your previous responses.

Once again it is to find how you picture yourself on these characteristics. Please try to disregard where you located yourself on the scale on the first questionnaire. We are only interested in how you see yourself now.

Please use the same method you have previously, indicating where you see yourself with an X, (—X—). All responses are to be made in relation to an outdoor situation and again will be completely confidential.

Thank you very much for your cooperation throughout this study.

CODE NUMBER ____________

1. Helpful ├─┼─┼─┼─┼─┼─┼─┼─┼─┼─┤ Hindering
not a part of my picture____

2. Sensitive to others ├─┼─┼─┼─┼─┼─┼─┼─┼─┼─┤ Insensitive to others
not a part of my picture____

3. Need to be directed ├─┼─┼─┼─┼─┼─┼─┼─┼─┼─┤ Prefer to direct
not a part of my picture____

4. Skilful with an axe ├─┼─┼─┼─┼─┼─┼─┼─┼─┼─┤ Not skilful with an axe
not a part of my picture____

5. Unfriendly ├─┼─┼─┼─┼─┼─┼─┼─┼─┼─┤ Friendly
not a part of my picture____

6. Appreciate nature ├─┼─┼─┼─┼─┼─┼─┼─┼─┼─┤ Take nature for granted
not a part of my picture____

7. Show judgement ├─┼─┼─┼─┼─┼─┼─┼─┼─┼─┤ Lack judgement
not a part of my picture____

8. Disinterested ├─┼─┼─┼─┼─┼─┼─┼─┼─┼─┤ Enthusiastic
not a part of my picture____

9. Not manually dexterous ├─┼─┼─┼─┼─┼─┼─┼─┼─┼─┤ Manually dexterous
not a part of my picture____

10. Lack self-confidence ├─┼─┼─┼─┼─┼─┼─┼─┼─┼─┤ Self-confident
not a part of my picture____

11. Show initiative ├─┼─┼─┼─┼─┼─┼─┼─┼─┼─┤ Need to be guided
not a part of my picture____

12. Competent in outdoor skills ├─┼─┼─┼─┼─┼─┼─┼─┼─┼─┤ Weak in outdoor skills
not a part of my picture____

13. Knowledgeable of the outdoors ├─┼─┼─┼─┼─┼─┼─┼─┼─┼─┤ Lack knowledge of the outdoors
not a part of my picture____

14. Uncooperative ├─┼─┼─┼─┼─┼─┼─┼─┼─┼─┤ Cooperative
not a part of my picture____

15. Dislike abnormal situations ├─┼─┼─┼─┼─┼─┼─┼─┼─┼─┤ Adaptable to abnormal situations
not a part of my picture____

16. Tolerant ├─┼─┼─┼─┼─┼─┼─┼─┼─┼─┤ Intolerant
not a part of my picture____

# APPENDIX D

# PILOT STUDY

# SELF RATING SELF CONCEPT INVENTORY

# QUESTIONNAIRE 1

## AN INVENTORY OF SELF CONCEPT

This questionnaire is an attempt to find out how people in this group picture themselves. The final value of the information you give will depend upon your frankness and the care with which you answer the questions.

Your responses will be completely confidential and for further use you will be given a code number. (Please add the last four digits of your telephone number after your name on the next sheet for this purpose.)

All responses must be made in relation to you in an outdoor education situation, e.g. experience in the outdoors, question #12.

Please answer as you see yourself, not how you think others see you or how you represent yourself to others.

Each characteristic is represented graphically by a scale. Please indicate the location on the scale where you presently picture yourself by an X. Place your marks in the middle of the space (—+—X—+—) not on the boundaries.

If you feel that some of these characteristics are not a part of your present picture of yourself, please indicate by checking the appropriate place.

NAME ____________________

CODE # ____________________

| | | | |
|---|---|---|---|
| 1. | Sensitive to others | ├─┼─┼─┼─┼─┼─┼─┼─┼─┼─┤<br>not a part of my picture____ | Insensitive to others |
| 2. | Self-confident | ├─┼─┼─┼─┼─┼─┼─┼─┼─┼─┤<br>not a part of my picture____ | Lack self-confidence |
| 3. | Reserved | ├─┼─┼─┼─┼─┼─┼─┼─┼─┼─┤<br>not a part of my picture____ | Talkative |
| 4. | Show initiative | ├─┼─┼─┼─┼─┼─┼─┼─┼─┼─┤<br>not a part of my picture____ | Need to be guided |
| 5. | Authoritarian | ├─┼─┼─┼─┼─┼─┼─┼─┼─┼─┤<br>not a part of my picture____ | Democratic |
| 6. | Competitive | ├─┼─┼─┼─┼─┼─┼─┼─┼─┼─┤<br>not a part of my picture____ | Cooperative |
| 7. | Leader | ├─┼─┼─┼─┼─┼─┼─┼─┼─┼─┤<br>not a part of my picture____ | Follower |
| 8. | Individualist | ├─┼─┼─┼─┼─┼─┼─┼─┼─┼─┤<br>not a part of my picture____ | Conformist |
| 9. | Tense | ├─┼─┼─┼─┼─┼─┼─┼─┼─┼─┤<br>not a part of my picture____ | Relaxed |
| 10. | Friendly | ├─┼─┼─┼─┼─┼─┼─┼─┼─┼─┤<br>not a part of my picture____ | Unfriendly |
| 11. | Independent | ├─┼─┼─┼─┼─┼─┼─┼─┼─┼─┤<br>not a part of my picture____ | Dependent |
| 12. | Experienced | ├─┼─┼─┼─┼─┼─┼─┼─┼─┼─┤<br>not a part of my picture____ | Inexperienced |
| 13. | Skilled | ├─┼─┼─┼─┼─┼─┼─┼─┼─┼─┤<br>not a part of my picture____ | Unskilled |
| 14. | Helpful | ├─┼─┼─┼─┼─┼─┼─┼─┼─┼─┤<br>not a part of my picture____ | Hindering |
| 15. | Tolerant | ├─┼─┼─┼─┼─┼─┼─┼─┼─┼─┤<br>not a part of my picture____ | Intolerant |

# APPENDIX E

# PILOT STUDY

# GROUP PERCEPTION INVENTORY

# QUESTIONNAIRE 2

Your Code # only ____________

This questionnaire is an attempt to find out how people perceive others in their group on the same characteristics as they were asked to picture themselves.

Please use one page for each member of your group. Put his/her name at the top and indicate where on each scale you perceive that person to be, with an X.

Place your marks in the middle of the space (_), not on the boundaries.

I would very much appreciate your care and honesty in your responses. Again, they will be completely confidential.

Finally, please reply to the questions below, which may be folded under before returning this questionnaire.

---

(fold under here)

1. In your opinion, who contributed most to the successful functioning of the group on the field trip?
   1st. Choice ________________ 2nd. Choice ________________________
2. Who helped to ease any tension which may have developed within your group?
   1st. Choice ________________ 2nd. Choice ________________________
3. If you were to go on a similar trip this weekend, who would you choose as your canoe/kayak partner? (Your choice can be made from the entire class).
   1st. Choice ________________ 2nd. Choice ________________________

# APPENDIX F

# SELECTED COMMENTS FROM SUBJECTS' ACCOUNTS OF THE OUTDOOR EDUCATION EXPERIENCE

"Besides increasing my knowledge of camp crafts and skills, I realize how important it is to have good group interaction for such an excursion to be successful. All the members of our group participated and got on well together".

"Our group functioned perfectly as a unit".

"As a whole, this outing was quite successful, from the social point of view. I enjoy camping with new people and to observe their reactions to different situations. This trip enabled me to find out a few characteristics about everybody in the class, especially my (camping) mates".

"Solo camp was an interesting experience and although I did make out O.K. I did get lonely and bored at times. I believe it would have been better for me to have gone in a group with company and a somewhat organized schedule".

"I think this campout showed that there was more group cohesion of all the students within the class. At the beginning of the year there was a definite pattern of scattered groups without interaction with others. (This trip) there was more interaction amongst the entire class".

"My group consisted of (X) and (Y). There was good interaction between all of us. Everybody shared in doing camp chores".

"Relying on other people was a big part of the trip, if things were to run smoothly. Everyone must do their share of the work".

"I know that a year ago I would have shied away from the situation. I feel much more confident now in front of people. Outdoor education has been a base and lead to the formation of this confidence".

"It always made me feel uncomfortable when the others didn't offer suggestions or alternatives in decision making. I always like to feel that everyone participated in a decision".

"I fulfilled some of my own objectives - to get to know myself better in a winter camp situation, my likes and dislikes, my skills and most important of all to get to know other organisms of the environment in this sharing experience".

"We were also very fortunate in having a group who equally shared responsibility and provided help to each other wherever possible".

"We had too many people in our group. There were 8 of us and too many people with nothing to do. I don't feel I learned as much as I would have in a smaller group because I didn't have to do as much...Some of the people in my group seemed quite strange and we never really got to know each other".

"The feelings of the members of the group seemed to change drastically throughout the camp. In preparation for the trip the group worked extremely well planning everything. But as the actual trip wore on there was less and less togetherness".

"During the time we were setting up the sauna there was excellent cooperation".

"The way which I tried to counter my aggrevation was by getting away from the members of my group so I wouldn't become too annoyed. If our camp had been isolated from the rest of the class, the camp would have been more frustrating".

"This (group) in my opinion did not go so well. We had initially started out with a group of five people. Suddenly someone's wife was coming along, another "outsider" threw themselves on the group and a latecomer joined in to make the group total 8. To my way of thinking a group as large as that can not function effectively".

"When we first started out on the trip none of us expected to get along because we had six leaders and no followers. But our group just got along fantastically. This sounds crazy but for the entire trip I had no complaints about anyone in our group. Something "clicked" and people did what needed to be done. Another consideration is that the weather wasn't very bad so it made group functioning easier. I think that everyone was trying to make our group work together too. Someone commented on how they thought that we all seemed to be really good friends and we didn't even know each other that well when we went out".

"I don't feel we could have had a more meaningful experience. The learning was tremendous, both from a camping standpoint to a socialization standpoint. Everyone in the group had a great time, made new friendships and acquired new skills ...There were quiet times and loud times, exciting times and drab times, but whatever was going on the group stuck together, helping each other and being helped by each other".

"I really enjoyed going out with the others and I know that all of us are better friends than when we went out. I hope we can go out again together".

"By lack of volunteers, I was delegated to check out equipment Thursday. With lots of other things to do this annoyed me a bit...I think the others felt out of place with all those jocks, and interacted more as a separate group after this. We had one hell of a group. The earlier premonission of too many chiefs made sure everyone was consulted. The fact that we were outsiders, "Reco" meant we only had our group to belong to. The lack of planning called for greater cooperation on the spot. The lack of structured program lead to an unusual state of leisure".

75+

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